

Exercise 1 Evaluate the following logarithmic expressions.

$$\log_b b^{\frac{7}{9}} = \boxed{\frac{7}{9}}$$

$$\log_{b^3} b^{\frac{3}{4}} = \boxed{\frac{1}{4}}$$

$$\log_{b^{\frac{2}{3}}} b^{\frac{8}{3}} = \boxed{4}$$
